

**ABSTRACT**

**OPTIMISATION OF THE DESIGN OF A COMPONENT**

A method of optimising a design of a component by conducting at least one analysis employing a 3D computer model which incorporates empirically obtained data values stored as 2D data sets. Ambiguities between values from different data sets which relate to common nodes, where the nodes define polygonal elements common to both 2D data sets, are resolved by determining an apparent area of said common polygonal elements from each of the at least two 2D datasets. The data value from the 2D dataset associated with the common polygonal element having the greater apparent area is used. An optimum component design is selected on the basis of the results of the analysis.